

REMARKS

Please consider the following comments. Following this response, claims 1-7 are pending. Applicants respectfully request reconsideration and allowance of this application in view of the above amendments and the following remarks.

Interview

The undersigned wished to again thank the Examiner for allowing an interview on September 7, 1006. This response is made in general accordance with the arguments made during that interview, though no additional evidence of secondary considerations is being provided at this time.

Claim Rejections – 35 U.S.C. § 103

The Examiner has rejected claims 1-7 under 35 U.S.C. § 103(a) as being allegedly unpatentable over United States Patent No. 6,902,028 to Takatsuku (“Takatsuku”) in view of United States Patent 4,800,974 to Wand et al. (“Wand”). Applicants respectfully traverse this rejection.

As noted previously, claim 1 recites a motor current detecting means having an amplifier, a temperature detecting means for detecting a temperature of said motor current detecting means, that the motor current detecting means is integrated in an integrated circuit package, and that the temperature detecting means is integrated in the integrated circuit package so as to be situated in the vicinity of the amplifier of the motor current detecting means.

These features are not disclosed or suggested in Takatsuka, which particularly fails to disclose any proximity between an amplifier in a motor current detecting means and a temperature detecting means. The Examiner has instead relied upon the newly-cited Wand for a

teaching of this feature. However, a careful examination of Wand will show that this is not the case.

In particular, the Examiner has noted that Wand discloses a duty cycle fold-back circuit 264 that monitors the magnitude of the current drawn by the motor 36 and the temperature of the driving circuit. The duty cycle fold-back circuit 264 includes a temperature-sensing device 570, and an amplifier 586 that outputs a voltage that is generally indicative of the current being applied to the motor. (See, e.g., Wand, column 11, lines 22-24, column 20, lines 12-13 and 49-54, and FIGs. 9 and 12.)

The Examiner asserts that that the amplifier 586 shows the recited motor current detecting means, and that the temperature-sensing device 570 shows the recited temperature detecting means. The Examiner then asserts that since the temperature-sensing device 570 and the amplifier 586 are functionally shown as both being in the duty cycle fold-back circuit 264, this suggests that a motor current detecting means be integrated in an integrated circuit package, and a temperature detecting means be integrated in the same integrated circuit package so as to be situated in the vicinity of the amplifier, as recited in claim 1. However this is not the case.

While the amplifier 586 and the temperature-sensing device 570 are indeed in the same functional element, i.e., the duty cycle fold-back circuit 264, there is no suggestion that the two be integrated in the same integrated circuit package so as to be in the same vicinity. In fact, based on the disclosure in Wand, this seems unlikely.

Wand discloses that “FETs 502, 504, 506 and 508 are all mounted on a common heat sink,” and that “a temperature-sensing device 570 is attached to the heat sink to measure its temperature.” (See, e.g., Wand, column 20, lines 12-13, and FIG. 12.) Thus, the a temperature-

sensing device 570 detects the temperature of the FETs 502, 504, 506, 508, *not* the temperature of the amplifier 586, or of any other portion of the duty cycle fold back circuit 264.

This means, as shown in FIGs. 9 and 12 of Wand, that the temperature-sensing device 570 is actually detecting a temperature of elements in the drive circuit 260, not elements in the duty cycle fold-back circuit 264. The Examiner's construction of Ward would thus require that the entirety of the duty cycle fold back circuit 264 be formed onto the common heat sink, and such a modification to Wand is neither disclosed, nor would such a modification it be obvious to one skilled in the art.

Furthermore, Wand does not disclose or suggest that the temperature-sensing device 570 be designed to detect a temperature of the amplifier 586. As noted above, the temperature-sensing device 570 specifically detects the temperature of a portion of the drive circuit 260. Thus, the temperature-sensing device 570 does not properly disclose "a temperature detecting means *for detecting a temperature of said motor current detecting means*," as required by claim 1. And given this fact, Applicants do not believe that the Examiner has demonstrated that it would be obvious to apply the teachings regarding the temperature-sensing device 570 of Wand to the temperature sensor 75 of Takatsuka.

Claims 2-7 all ultimately depend from claim 1, and are allowable for at least the reasons given above for claim 1.

For at least the reasons given above, Applicants submit that Takatsuku does not disclose or suggest every feature recited in claims 1-7, as amended. For at least these reasons, Applicants therefore respectfully request that the Examiner withdraw the rejection of claims 1-7 under 35 U.S.C. § 103(a) as being allegedly unpatentable over Takatsuku.

Conclusion

For all the reasons advanced above, the applicant respectfully submits that pending claims 1-7 are allowable.

In view of the foregoing, the applicant respectfully submits that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Brian C. Altmiller", is written over a horizontal line.

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